

10/676,031

(FILE 'HOME' ENTERED AT 22:14:17 ON 20 MAR 2005)

FILE 'REGISTRY' ENTERED AT 22:14:51 ON 20 MAR 2005

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

~~L1 STR~~

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 22:15:25 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 5989 TO ITERATE

16.7% PROCESSED 1000 ITERATIONS 1 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 115141 TO 124419  
PROJECTED ANSWERS: 1 TO 265

L2 1 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 22:15:30 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 123166 TO ITERATE

100.0% PROCESSED 123166 ITERATIONS 94 ANSWERS  
SEARCH TIME: 00.00.01

L3 94 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.33	161.54

FILE 'CAPLUS' ENTERED AT 22:15:36 ON 20 MAR 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Mar 2005 VOL 142 ISS 13

FILE LAST UPDATED: 18 Mar 2005 (20050318/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4 38 L3

=> d 1-38 bib abs

L4 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:136040 CAPLUS  
DN 141:235008  
TI Synthesis and characterization of some copper(II) complexes of hydrazines  
AU Gaur, Avdesh  
CS Department of Chemistry, N.A.S. College, Meerut, 250 001, India  
SO Asian Journal of Chemistry (2004), 16(1), 528-530  
CODEN: AJCHEW; ISSN: 0970-7077  
PB Asian Journal of Chemistry  
DT Journal  
LA English  
AB Some Cu(II) complexes of hydrazine and p-chlorophenylhydrazine were isolated and characterized from chemical anal., magnetic susceptibility, IR and electronic spectral studies.  
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:927443 CAPLUS  
DN 138:4789  
TI An arylation method for the functionalization of O-allyl erythromycin derivatives via modified Heck reaction  
IN Zhang, Weijiang; Hsu, Margaret Chi-Ping; Haight, Anthony R.; Peterson, Matthew John; Narayanan, Bikshandarkoil A.  
PA Abbott Laboratories, USA  
SO PCT Int. Appl., 44 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002096922	A1	20021205	WO 2002-US18348	20020521
	W: AU, BR, CA, CN, IL, IN, JP, KR, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	BR 2002006106	A	20031014	BR 2002-6106	20020521
	EP 1399458	A1	20040324	EP 2002-741957	20020521
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2004536075	T2	20041202	JP 2003-500101	20020521
	US 2003125531	A1	20030703	US 2002-156404	20020528
PRAI	US 2001-294326P	P	20010530		
	WO 2002-US18348	W	20020521		

OS CASREACT 138:4789  
AB An efficient arylation technique for use in the synthesis of erythromycin derivs. , involving a modified Heck reaction which employs less than six mole percent of palladium catalyst and no phosphine is disclosed. With this modified Heck reaction, an O-alkenylaryl macrolide can be obtained in a much shorter reaction time than under conventional Heck reaction conditions. The modified Heck reaction can be utilized in a method for phosphine-free arylation of an O-allylic erythromycin derivative, in a method for preparing an O-alkenylaryl erythromycin A derivative, or in a method for preparing a 2', 4''-hydroxyl protected 6-O-alkenylaryl erythromycin A derivative. Thus, 6-O-(3-(3-quinolyl)-2-propen-1-yl)-erythromycin A 9-oxime benzoate-2',4''-dibenzoate was prepared via phase transfer catalyst tetra-Bu ammonium chloride and palladium-catalyzed modified Heck reaction.  
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:608604 CAPLUS  
DN 131:345683  
TI Spectroscopic and magnetic properties of the dimeric [Cu(SO4)·(1,4-dihydrazinophthalazine)·H2O]2 complex  
AU David, L.; Cozar, O.; Chis, V.; Ristoiu, D.; Balan, C.  
CS Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, 3400, Rom.

SO   Studia Universitatis Babes-Bolyai, Chemia (1997), 42(1), 49-55  
 CODEN: SUBCAB; ISSN: 1224-7154  
 PB   Studia Universitatis Babes-Bolyai  
 DT   Journal  
 LA   English  
 AB   CuSO4 complex with 1,4-dihydrazinophthalazine (DHP) was prepared and investigated by UV/visible, IR and ESR spectroscopies and magnetic susceptibility measurements. The complex appears to have a square-pyramidal arrangement of C4v symmetry with four N atoms in the basal (xOy) plane and an apical O atom from a coordinated H2O mol. Powder ESR spectrum and magnetic susceptibility measurements show the existence of dimeric species characterized by a fairly strong antiferromagnetic exchange coupling (2J = -92 cm-1). Monomeric species also are reported.

---

RE.CNT 18   THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4   ANSWER 4 OF 38   CAPLUS   COPYRIGHT 2005 ACS on STN  
 AN   1998:751138   CAPLUS  
 DN   130:141340  
 TI   Study on production of nickelous hydrazine nitrate  
 AU   Chen, Tailin  
 CS   No.9634 Factory, 417618, Peop. Rep. China  
 SO   Baopo Qicai (1998), 27(4), 23-24  
      CODEN: BAQIEJ; ISSN: 1001-8352  
 PB   Baopo Qicai Bianjibu  
 DT   Journal  
 LA   Chinese  
 AB   The production of nickelous hydrazine nitrate was studied. Nickelous hydrazine nitrate was prepared by Ni(NO3)2 and N2H4.H2O. The optimum process design was obtained by orthogonal expts.

L4   ANSWER 5 OF 38   CAPLUS   COPYRIGHT 2005 ACS on STN  
 AN   1998:175353   CAPLUS  
 DN   128:206501  
 TI   Metal complexes for use as gas-generating agents for use in airbag inflation  
 IN   Hinshaw, Jerald C.; Doll, Daniel W.; Blau, Reed J.; Lund, Gary K.  
 PA   Thiokol Corp., USA  
 SO   U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 184,456, abandoned.  
      CODEN: USXXAM

DT   Patent  
 LA   English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 5725699	A	19980310	US 1995-507552	19950726
	CA 2181543	AA	19950727	CA 1995-2181543	19950104
	CA 2181543	C	19990420		
	US 5673935	A	19971007	US 1995-484142	19950607
	US 5592812	A	19970114	US 1996-599634	19960209
	CA 2227872	AA	19970213	CA 1996-2227872	19960723
	WO 9704860	A2	19970213	WO 1996-US12630	19960723
	WO 9704860	A3	19991202		
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9666451	A1	19970226	AU 1996-66451	19960723
	AU 721724	B2	20000713		
	EP 840716	A2	19980513	EP 1996-926229	19960723
	R: AT, BE, DE, ES, FR, GB, IT, SE				
	JP 11510779	T2	19990921	JP 1997-507900	19960723
	BR 9609842	A	19991005	BR 1996-9842	19960723
	CN 1255910	A	20000607	CN 1996-197079	19960723
	US 5735118	A	19980407	US 1996-698657	19960816
	US 6481746	B1	20021119	US 1996-746224	19961107
	US 5970703	A	19991026	US 1997-934900	19970922

AU 757780	B2	20030306	AU 2000-18495	20000222
PRAI US 1994-184456	B2	19940119		
US 1995-507552	A	19950726		
AU 1996-66451	A3	19960723		
WO 1996-US12630	W	19960723		
US 1997-746224	A3	19971107		

AB Metal complexes are used as gas-generating compns. for use in airbag inflation. These complexes are comprised of a metal cation template, a neutral ligand containing hydrogen and nitrogen, and sufficient oxidizing anion to balance the charge of the complex. The complexes are formulated such that when the complex combusts, nitrogen gas and water vapor is produced. Specific examples of such complexes include metal nitrite ammine, metal nitrate ammine, and metal perchlorate ammine complexes, as well as hydrazine complexes. A binder and co-oxidizer can be combined with the metal complexes to improve crush strength of the gas-generating compns. and to permit efficient combustion of the binder.

RE.CNT 167 THERE ARE 167 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:124058 CAPLUS

DN 128:194415

TI Metal complexes for use as gas generants for inflation of airbags

IN Lund, Gary K.

PA Thiokol Corporation, USA; Lund, Gary K.

SO PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9806486	A2	19980219	WO 1997-US12565	19970725
	WO 9806486	A3	19990527		
	W:		AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
	US 6039820	A	20000321	US 1997-899599	19970724
	CA 2261601	AA	19980219	CA 1997-2261601	19970725
	AU 9739599	A1	19980306	AU 1997-39599	19970725
	AU 721984	B2	20000720		
	EP 958264	A2	19991124	EP 1997-936968	19970725
	R:		AT, BE, DE, ES, FR, GB, IT, SE		
	CN 1247525	A	20000315	CN 1997-197921	19970725
	BR 9711958	A	20001024	BR 1997-11958	19970725
	JP 2001508751	T2	20010703	JP 1998-509719	19970725
	KR 2000029646	A	20000525	KR 1999-700717	19990125
	MX 9900916	A	20000731	MX 1999-916	19990125
	US 6241281	B1	20010605	US 1999-434274	19991105
PRAI	US 1996-22645P	P	19960725		
	US 1997-899599	A	19970724		
	WO 1997-US12565	W	19970725		

AB Metal complexes are used as gas generating compns. These complexes are comprised of a metal cation template, a neutral ligand containing hydrogen and nitrogen, and sufficient oxidizing anion to balance the charge of the complex, e.g., hexaamminecobalt(III) nitrate. Such complexes include metal nitrite amines, metal nitrate amines, and metal perchlorate amines, as well as similar hydrazine complexes. The complexes are used in mixts. with  $\geq 1$  cool burning organic nitrogen-containing compound, e.g., guanidine nitrate. Nitrogen gas and water vapor are produced when the complex combusts. A binder, e.g., guar gum, and co-oxidizer, e.g., basic copper nitrate, can be combined with the metal complexes to improve crush strength of the gas generating compns. and to permit efficient combustion of the binder. The gas generating compns. are used for inflation of

automobile airbags.

L4 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1997:792647 CAPLUS  
DN 128:106995  
TI Heat capacity and thermodynamic properties of  $[\text{Ni}(\text{N}_2\text{H}_4)_3]\text{B}_{10}\text{H}_{10}$  in the low temperature range  
AU Gavrichev, K. S.; Gorbunov, V. E.; Malinina, E. A.; Solntsev, K. A.; Kuznetsov, N. T.  
CS Kurnakov Institute of General and Inorganic Chemistry, Russian Academy of Sciences, Moscow, 117907, Russia  
SO Russian Journal of Coordination Chemistry (Translation of Koordinatsionnaya Khimiya) (1997), 23(11), 771-772  
CODEN: RJCCEY; ISSN: 1070-3284  
PB MAIK Nauka/Interperiodica Publishing  
DT Journal  
LA English  
AB The temperature dependence of the heat capacity of  $[\text{Ni}(\text{N}_2\text{H}_4)_3]\text{B}_{10}\text{H}_{10}$  is studied in the range of low temps. by the method of adiabatic calorimetry. No anomalies of the heat capacity, indicating the presence of phase transitions, were found. Smoothed values of the thermodyn. functions of the complex in the studied temperature range were calculated from the exptl. data. Under standard conditions, these functions are as follows:  $C_{p0}(298.15 \text{ K}) = 274.6 \pm 0.5 \text{ J/(mol K)}$ ,  $S_0(298.15 \text{ K}) = 296.3 \pm 0.7 \text{ J/(mol K)}$ ,  $H_0(298.15 \text{ K}) - H_0(0) = 45960 \pm 90 \text{ J/mol}$ ,  $\Phi_0(298.15 \text{ K}) = 142.1 \pm 0.3 \text{ J/(mol K)}$ .  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1997:230662 CAPLUS  
DN 126:301061  
TI  $\text{N}_2\text{H}_x$  coordination at the tripod-cobalt template  $\text{CH}_3\text{C}(\text{CH}_2\text{PPh}_2)_3\text{Co}$ . The transformation of  $\eta^2\text{-HNNMe}_2$  into  $\eta^1\text{-NNMe}_2$  ligands  
AU Korner, Volkmar; Huttner, Gottfried; Vogel, Sabine; Barth, Annette; Zsolnai, Laszlo  
CS Department Inorganic Chemistry, University Heidelberg, Heidelberg, D-69120, Germany  
SO Chemische Berichte/Recueil (1997), 130(4), 489-492  
CODEN: CHBRFW  
PB VCH  
DT Journal  
LA English  
AB While  $\eta^2$ -coordination of  $\text{N}_2\text{H}_4$  and  $\text{N}_2\text{H}_3^-$  to tripod-cobalt entities has been reported, stabilization of  $\text{N}_2\text{H}_2$  in this system has not yet been achieved.  $[\text{TripodCo}(\eta^2\text{-HNNMe}_2)]^+ \text{ (I)}$  is transformed into  $[\text{tripodCo}(\eta^1\text{-NNMe}_2)]^+ \text{ (II)}$  by reaction with  $\text{LiN}(\text{SiMe}_3)_2$  as a base. The deprotonation of I is accompanied by a redox reaction, and the overall reaction corresponds to the transformation of I to II with the loss of an electron and a proton. The observed coupling of deprotonation and oxidation is the reverse of the processes assumed to occur during N fixation. The results are established by the usual anal. and spectroscopic techniques and x-ray analyses.  $[\text{TripodCo}(\eta^2\text{-HNNMe}_2)]^+(\text{BPh}_4) \cdot 1.5\text{THF}$ : monoclinic, space group  $\text{C}2/c$ ;  $a \ 2386.4(9)$ ,  $b \ 1705.8(9)$ ,  $c \ 3292(1) \text{ pm}$ ;  $\beta \ 95.75(3)^\circ$ ;  $V = 13334 \cdot 106 \text{ pm}^3$ ;  $Z = 8$ .  $[\text{TripodCo}(\eta^1\text{-NNMe}_2)]^+(\text{BF}_4) \cdot 1.65\text{CH}_2\text{Cl}_2$ : monoclinic, space group  $\text{P}2_1/c$ ;  $a \ 1456.2(8)$ ,  $b \ 1431.1(8)$ ,  $c \ 2460.0(1) \text{ pm}$ ;  $\beta \ 94.72(2)^\circ$ ;  $V = 5109.2 \cdot 106 \text{ pm}^3$ ;  $Z = 4$ .

L4 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1997:218694 CAPLUS  
DN 126:214046  
TI Metal complexes for use as gas generating composition for inflation of airbags  
IN Hinshaw, Jerald C.; Doll, Daniel W.; Blau, Reed J.; Lund, Gary K.  
PA Thiokol Corporation, USA  
SO PCT Int. Appl., 48 pp.  
CODEN: PIXXD2  
DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9704860	A2	19970213	WO 1996-US12630	19960723
	WO 9704860	A3	19991202		
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	US 5725699	A	19980310	US 1995-507552	19950726
	AU 9666451	A1	19970226	AU 1996-66451	19960723
	AU 721724	B2	20000713		
	EP 840716	A2	19980513	EP 1996-926229	19960723
	R: AT, BE, DE, ES, FR, GB, IT, SE				
	JP 11510779	T2	19990921	JP 1997-507900	19960723
	BR 9609842	A	19991005	BR 1996-9842	19960723
	AU 757780	B2	20030306	AU 2000-18495	20000222
PRAI	US 1995-507552	A	19950726		
	US 1994-184456	B2	19940119		
	AU 1996-66451	A3	19960723		
	WO 1996-US12630	W	19960723		

AB Metal complexes are used as gas generating compns. and these complexes are comprised of a metal cation template, a neutral ligand containing hydrogen and nitrogen, and sufficient oxidizing anion to balance the charge of the complex. Nitrogen gas and water vapor are produced when the complex combusts. Such complexes include metal nitrite amine, metal nitrate amine, and metal perchlorate amine complexes, as well as hydrazine complexes. A binder and co-oxidizer can be combined with the metal complexes to improve crush strength of the gas generating compns. and to permit efficient combustion of the binder. The gas generating compns. are for use in gas generating devices such as automobile airbags.

L4 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:723700 CAPLUS

DN 126:69337

TI Ligand interchange from bis(3,3-pentamethylenediaziridine) cobalt dichloride. Evidence of metallacyclic heterobimetallic intermediate formation

AU Faria dos Santos Filho, Pedro

CS Inst. Quimica, Univ. Estadual Campinas, Campinas, 13081, Brazil

SO Journal of the Brazilian Chemical Society (1996), 7(4), 263-266

CODEN: JOCSET; ISSN: 0103-5053

PB Sociedade Brasileira de Quimica

DT Journal

LA English

AB Ligand interchange can be observed in reactions of bis(3,3-pentamethylenediaziridine)cobalt dichloride with Pd(II), Cd(II), Ni(II) and Rh(III) chlorides. In the case of the reaction with bis(benzonitrile)palladium dichloride the stereochem. of the product isolated indicates that the intermediate involved in this reaction is a metallacyclic heterobimetallic complex which, depending on the combination of the metals, can be isolated.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:467342 CAPLUS

DN 125:118956

TI Gas-generating compositions in gas generator for inflation of airbags

IN Verneker, V. R. Pai

PA Conducting Materials Corp., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5536339	A	19960716	US 1994-312779	19940927
PRAI	US 1994-312779		19940927		
AB	<p>A non-sodium azide gas generating composition comprises lithium, potassium, or sodium perchlorates, nitride or non-halogenated polymer, styrene peroxides, polystyrene peroxides, zinc peroxide in hydrated form, iron oxalate hydrazinate, and iron nitrate hydrazinate. Thus, a gas generating composition comprising copper nitride, sodium perchlorate, and polyester was made, and the resulting gas had a composition the same as air. The gas generating composition has reduced toxicity, reduced risk of chemical and thermal burning of the driver, and reduced risk of premature deployment.</p>				

L4 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1996:428350 CAPLUS  
DN 125:195963  
TI Conformation of tripod metal templates in  $\text{MeC}(\text{CH}_2\text{PPh}_2)_3\text{MLn}$  ( $n = 2, 3$ ).  
Neural networks in conformational analysis  
AU Beyreuther, Stefan; Hunger, Johannes; Huttner, Gottfried; Mann, Susanne;  
Zsolnai, Laszlo  
CS Anorganisch Chemisches Inst., Univ. Heidelberg, Heidelberg, D-69120,  
Germany  
SO Chemische Berichte (1996), 129(7), 745-757  
CODEN: CHBEAM; ISSN: 0009-2940  
PB VCH  
DT Journal  
LA English  
AB The conformational space spanned by tripod metal templates  $\text{MeC}(\text{CH}_2\text{PPh}_2)_3\text{M}$  is analyzed on the basis of the solid-state structures of 72 tripodCo templates in compds. tripodCoL2 and tripodCoL3. Systematic anal., including the techniques of conformational space group scatter graphs, principal-component anal., and partial least squares, reveals a series of basic regularities. The torsion of the Ph groups is strongly linked to the torsional skew of the bicyclooctane-type framework of the chelate cage. For 1 sense of this skew there are 2 classes of low-energy conformation that differ by the helicity of the Ph arrangement and by the degree of torsional skew in the chelate backbone. From the scatter graphs it is evident that a change in helicity may occur by 1- or by 2-ring flip mechanisms. The basic regularities found by the above methods are also evident from the anal. of the same data by a neural network approach. The fact that these regularities are found for tripodCoL2 and tripodCoL3, irresp. of the widely different coligands L and crystal environments, means that the conformation of the tripod metal templates is governed by the forces imposed on them by their individual chemical or crystal environment. The classifications, although derived from a data basis only containing Co compds., are characteristic for tripod metal templates irresp. of the specific metal involved.

L4 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:715825 CAPLUS  
DN 123:159338  
TI Studies on platinum(II) and palladium(II) complexes of some substituted pyrazole-5-ones, pyrazoles, (hydroxyaryl)pyrazoles and pyranopyrazole  
AU Al-Allaf, Talal A. K.; Al-Bayati, Redha I. H.  
CS College of Science, University of Mosul, Mosul, Iraq  
SO Asian Journal of Chemistry (1995), 7(3), 465-70  
CODEN: AJCHEW; ISSN: 0970-7077  
PB Asian Journal of Chemistry  
DT Journal  
LA English  
AB The coordination behavior of several pyrazole-5-ones and pyrazoles derivs. with Pt(II) and Pd(II) metals are reported by the isolation and characterization of the resulting complexes. These complexes possess a square planar structure (cis-form) as revealed from IR and NMR spectral data. The ligands are coordinated mainly through the N-N linkage of the pyrazole ring.

L4 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:465056 CAPLUS

DN 123:305170  
 TI The closo-borate anions B10H102- and B12H122- in hydrazine complexes of Ni(II) and Pb(II) and in hydrazinium salts  
 AU Malinina, E. A.; Goeva, L. V.; Votinova, N. A.; Solntsev, K. A.; Kuznetsov, N. T.  
 CS Inst. Obshch. Neorg. Khim. im. N. S. Kurnakova, Moscow, Russia  
 SO Zhurnal Neorganicheskoi Khimii (1994), 39(12), 1997-2000  
 CODEN: ZNOKAQ; ISSN: 0044-457X

---

PB MAIK Nauka  
 DT Journal  
 LA Russian  
 AB (N2H5)2Z.N2H4 (Z = B10H102-, B12H122-), [Ni(N2H4)3]Z and [(PbOH)2N2H4]Z were prepared IR spectral data indicate that hydrazine is bidentate in the octahedral Ni complexes and is bidentate bridging in the Pb complexes. The closo-borate anions are outer sphere in the Ni and Pb complexes. In (N2H5)2Z.N2H4 hydrogen bonding is observed between N2H5+ and Z.

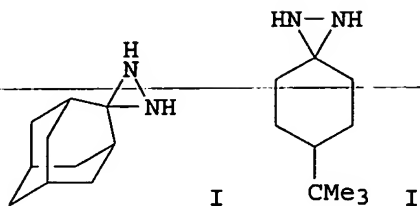
L4 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1994:660870 CAPLUS  
 DN 121:260870  
 TI Synthesis of NiAl fine powder from mechanochemically activated precursors  
 AU Abe, O.  
 CS Fac. Engineering, Ibaraki Univ., Nakanarusawa, 316, Japan  
 SO Proc. Int. Conf. Mechanochem., 1st (1993), Volume 2, 27-31. Editor(s): Tkacova, Klara. Publisher: Cambridge Intersci. Publ., Cambridge, UK.  
 CODEN: 60LWAT  
 DT Conference  
 LA English  
 AB The effect of mechanochem. activation of organometallic salt precursor on the synthesis of fine powder of intermetallic NiAl has been studied. The precursor was copptd. as a mixture of Al(OH)2(C6H5COO) and [Ni(N2H4)3](C6H5COO)2. The activation promoted the thermal decomposition of the precursor to form fine and homogeneous mixture of intermediate Ni3C, Al2O3, and C at 1000 °C, resulting in the efficient formation of NiAl at 1500 °C. The processes of thermal decomposition and formation reaction of NiAl have been discussed in relation to the activation.

L4 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1993:439502 CAPLUS  
 DN 119:39502  
 TI Hydrazide (H2NNH-) and hydroxylamide (H2NO-) as η2-coordinated ligands in tripod cobalt complexes  
 AU Vogel, Sabine; Huttner, Gottfried; Zsolnai, Laszlo; Emmerich, Christiane  
 CS Anorg.-Chem. Inst., Univ. Heidelberg, Heidelberg, D-W-6900, Germany  
 SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (1993), 48(3), 353-63  
 CODEN: ZNBSEN; ISSN: 0932-0776  
 DT Journal  
 LA German  
 AB [(Tripod)Co(η2-NH2O)]+ (2; tripod = CH3C(CH2PPh2)3), containing an η2-coordinated NH2O--ligand, is an isoelectronic equivalent to the recently reported [(tripod)Co(η2-N2H3)]+ (1), which contains side-on coordinated N2H3-. The structures of 1 and 2 are almost superimposable. The structural discrimination between the NH2- and O- parts of the η2-NH2O--ligand in 2 was corroborated by the synthesis and x-ray anal. of [(tripod)Co(η2-NMe2O)]+ and [(tripod)CoCl(NH2OMe)]+. 2 Upon treatment with air transforms into [(tripod)Co(NO)], the structure of which was determined

L4 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1993:428331 CAPLUS  
 DN 119:28331  
 TI Rhodium(I) complexes of 4-t-butylcyclohexyldiaziridine and adamantyldiaziridine: synthesis, structure and catalytic activity  
 AU Adedapo, A.; Benyunes, S. A.; Chaloner, P. A.; Claver, C.; Hitchcock, P. B.; Ruiz, A.; Ruiz, N.  
 CS Sch. Chem. Mol. Sci., Univ. Sussex, Falmer, Brighton, BN1 9QJ, UK  
 SO Journal of Organometallic Chemistry (1993), 443(2), 241-7  
 CODEN: JORCAI; ISSN: 0022-328X



DT Journal  
LA English  
GI



AB Rhodium(I) complexes of the ligands adamantyldiaziridine (I) and 4-t-butylcyclohexyldiaziridine (II) have been prepared and characterized. The structure of [RhCl(cod)(4-t-butylcyclohexyldiaziridine)] has been established by an X-ray diffraction study. The rhodium is coordinated to the equatorial nitrogen atom of the diaziridine. The complexes are rather poor catalysts for hydrogenation or hydroformylation of alkenes.

L4 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:220055 CAPLUS

DN 114:220055

TI Intermediate in nitrogenase models. Hydrazide and hydrazine as  $\eta^2$ -coordinated ligands

AU Vogel, Sabine; Barth, Annette; Huttner, Gottfried; Klein, Thomas; Zsolnai, Laszlo; Kremer, Reinhard

CS Anorg. Chem. Inst., Univ. Heidelberg, Heidelberg, W-6900, Germany

SO Angewandte Chemie (1991), 103(3), 325-7 (See also Angew. Chem., Int. Ed. Engl., 1991, 30(3), 303-4)

CODEN: ANCEAD; ISSN: 0044-8249

DT Journal

LA German

AB Co(BF<sub>4</sub>)<sub>2</sub>·6H<sub>2</sub>O reacted with MeC(CH<sub>2</sub>PPh<sub>2</sub>)<sub>3</sub> (tripod) and N<sub>2</sub>H<sub>4</sub> to give [Co( $\eta^2$ -N<sub>2</sub>H<sub>3</sub>)(tripod)]BPh<sub>4</sub>·2THF (I·2THF). Protonation of I by HBF<sub>4</sub> gave Co( $\eta^2$ -N<sub>2</sub>H<sub>4</sub>)(tripod)](BPh<sub>4</sub>)(BF<sub>4</sub>)·THF (II·THF). I·2THF is monoclinic, space group P2<sub>1</sub>/c, Z = 4, R<sub>1</sub> = 0.1101, R<sub>g</sub> = 0.0963. II·THF is triclinic, space group P<sub>1</sub>h<sub>1</sub>·1, Z = 2, R<sub>1</sub> = 0.1213, R<sub>g</sub> = 0.1084. The coordination geometry of low-spin Co<sup>2+</sup> is between square pyramidal and trigonal bipyramidal. The coordination geometry of high-spin Co<sup>2+</sup> in II is distorted square pyramidal. The N-N bond lengths in I and II are 138.4(14) and 144.6(17) pm, resp. I·2THF and II·THF were characterized by IR spectra. I and II are intermediates of models of nitrogenase.

L4 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:163665 CAPLUS

DN 110:163665

TI Recording media incorporating complex metal azide explosives and dye-azide explosives

IN Thomson, Paul C. P.

PA Optical Recording Corp., Can.; Cohn, Ronald D.

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8803667	A1	19880519	WO 1987-US2904	19871109

W: JP

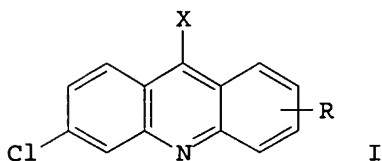
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE

PRAI US 1986-928027 A 19861107

AB An optical recording material contains: (1) an energy absorptive dye and (2) an explosive material (a metal azide complex) having an appropriate temperature of explosive decomposition and capable of emitting significant amount of energy upon explosive decomposition. Thus, a low-intensity semiconductor laser recording material was prepared with cupric azide-o-toluidine complex and IR

125 to give satisfactory results.

- L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:178912 CAPLUS  
DN 108:178912  
TI Moessbauer study of complexation in the iron(III) oxalate-hydrazine-alcohol system  
AU Nikonenko, E. A.; Marenkova, I. N.  
CS Ural. Politekh. Inst., Sverdlovsk, USSR  
SO Koordinatsionnaya Khimiya (1987), 13(11), 1481-3  
CODEN: KOKHDC; ISSN: 0132-344X  
DT Journal  
LA Russian  
AB  $\text{Fe}_2(\text{C}_2\text{O}_4)_3 \cdot 5\text{H}_2\text{O}$  reacted with a 60% EtOH solution of  $\text{N}_2\text{H}_4$  to give  $\text{Fe}(\text{C}_2\text{O}_4)_3 \cdot \text{N}_2\text{H}_4 \cdot 2\text{H}_2\text{O}$  as indicated by Moessbauer and IR spectral data. On aging in air  $\text{Fe}(\text{C}_2\text{O}_4)_3 \cdot \text{N}_2\text{H}_4 \cdot 2\text{H}_2\text{O}$  decomposed
- L4 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:131558 CAPLUS  
DN 108:131558  
TI Synthesis and biological activity of 9-hydrazino- and 9-hydrazonoacridines  
AU Gaidukevich, O. M.; Kazakov, G. P.; Levitin, E. Ya.; Timofeeva, V. R.; Kravchenko, O. O.; Martynovskii, O. O.  
CS Kharkov Pharm. Inst., Kharkov, USSR  
SO Farmatsevtichnii Zhurnal (Kiev) (1987), (3), 34-39  
CODEN: FRZKAP; ISSN: 0367-3057  
DT Journal  
LA Ukrainian  
GI



- AB Treating 6,9-dichloroacridines I ( $\text{X} = \text{Cl}$ ;  $\text{R} = \text{H}$ , 2- and 4-Me and -OMe, 4-Cl) with  $\text{N}_2\text{H}_4 \cdot \text{H}_2\text{O}$  in refluxing MeOH-dioxane gave 53-76% I ( $\text{X} = \text{NHNH}_2$ , same R), which condensed with  $\text{R}_1\text{CHO}$  ( $\text{R}_1 = \beta$ -hydroxy- $\alpha$ -naphthyl, p- $\text{FC}_6\text{H}_4$ , p- $\text{Me}_2\text{NC}_6\text{H}_4$ , o-, m- and p- $\text{O}_2\text{NC}_6\text{H}_4$ , o- $\text{ClC}_6\text{H}_4$ , o- and p- $\text{MeOC}_6\text{H}_4$ , 5-nitro-2-thiazolyl, p- $\text{O}_2\text{NC}_6\text{H}_4\text{CH}:\text{CCl}$ ,  $\beta$ -styryl) and isatin in refluxing EtOH containing AcOH to give 42 corresponding I ( $\text{X} = \text{NH}:\text{CHR}_1$ ) in 62-87% yield. I [ $\text{X} = \text{NHNH}_2$ ,  $\text{R}_1 = \text{H}$  (II), 2-OMe, 2-Me;  $\text{X} = \text{NHN}:\text{CHC}_6\text{H}_4\text{OMe-p}$ ,  $\text{R}_1 = \text{H}$ ] formed 7 1:1 complexes with  $\text{FeSO}_4$ ,  $\text{CuCl}$ ,  $\text{CuCl}_2$  and/or  $\text{CoCl}_2$  in 29-41% yield. II, I ( $\text{X} = \text{NHN}:\text{CHC}_6\text{H}_4\text{NO}_2\text{-p}$ ,  $\text{R}_1 = 2\text{-OMe}$ ) and II· $\text{CuCl}$  had the highest fungicidal activity of the compds. prepared
- L4 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1982:448583 CAPLUS  
DN 97:48583  
TI Synthesis and characterization of metal hydrazine nitrate, azide and perchlorate complexes  
AU Patil, K. C.; Nesamani, C.; Verneker, V. R. Pai  
CS Dep. Inorg. Phys. Chem., Indian Inst. Sci., Bangalore, 560012, India  
SO Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry (1982), 12(4), 383-95  
CODEN: SRIMCN; ISSN: 0094-5714  
DT Journal  
LA English  
AB  $\text{M}(\text{N}_2\text{H}_4)_n(\text{NO}_3)_2$  ( $\text{M} = \text{Mg}$ ,  $\text{Cd}$ ,  $n = 2$ ;  $\text{M} = \text{Mn}$ ,  $\text{Fe}$ ,  $\text{Co}$ ,  $\text{Ni}$ ,  $\text{Zn}$ ,  $\text{Cd}$ ,  $n = 3$ ),  $\text{M}(\text{N}_2\text{H}_4)_2(\text{N}_3)_2$  ( $\text{M} = \text{Mg}$ ,  $\text{Co}$ ,  $\text{Ni}$ ,  $\text{Zn}$ ), and  $\text{Mg}(\text{N}_2\text{H}_4)_2(\text{ClO}_4)_2$  were prepared by dissolving metal powder in solns. of  $\text{NH}_4\text{X}$  ( $\text{X} = \text{NO}_3$ ,  $\text{N}_3$ ,  $\text{ClO}_4$ ) in  $\text{N}_2\text{H}_4 \cdot \text{H}_2\text{O}$ . The  $\text{N}_2\text{H}_4$  complexes were characterized by elemental anal., IR spectra, and DTA. Values for impact sensitivities indicate that the  $\text{N}_2\text{H}_4$  transition metal complexes are primary explosives; the Mg complexes are

nonexplosives.

- L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1980:596849 CAPLUS  
DN 93:196849  
TI Spectral and magnetic properties of some heteronuclear complexes of copper and zinc with hydrazine as a ligand  
AU Meghea, Aurelia; Mincu, Valentin; Brezeanu, Maria; Gutul, Melania  
CS Fac. Tehnol. Chim., Inst. Politeh., Bucharest, Rom.  
SO Revistade Chimie (Bucharest, Romania) (1980), 31(6), 556-7  
CODEN: RCBUAU; ISSN: 0034-7752  
DT Journal  
LA Romanian  
AB The compds.  $\text{CuZn}(\text{N}_2\text{H}_4)_4\text{X}_4$  ( $\text{X} = \text{Cl}, \text{Br}$ ), in which hydrazine is a bridging ligand, were investigated by several methods to establish their stereochem. The UV absorption spectra indicate that the  $\text{Cu}(\text{II})$  ion is in an octahedral environment. The  $10\text{Dq}$  values were 16,400 and 16,100  $\text{cm}^{-1}$  for the Cl and Br compds., resp. The contribution of the temperature-independent paramagnetism to the total susceptibility (as determined by the Faraday method) is small, showing that the  $t_{2g}$  electrons are not delocalized. The resulting values of the magnetic moment were 1.92 and  $1.93 \pm 0.02 \mu\text{B}$  at room temperature, resp. The ESR spectra indicated that the octahedral arrangement is tetragonally distorted and that the Br derivative is stable, whereas the Cl derivative decomps. after 24 h into hydrated  $\text{CuCl}_2$  and other compds.
- L4 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1980:470013 CAPLUS  
DN 93:70013  
TI Experimental determination of coordination numbers. Part III. Coordination compounds of copper and nickel with hydrazine as ligands  
AU Maeueller, Guenter  
CS Abt. Koeln, PH-Rheinland, Cologne, 5000/41, Fed. Rep. Ger.  
SO Praxis der Naturwissenschaften, Chemie (1980), 29(3), 85-8  
CODEN: PXNCAP; ISSN: 0342-8737  
DT Journal  
LA German  
AB Coordination nos. of Cu and Ni were determined by the formation of coordination complexes with hydrazine as the ligand, quant. determination of the metal and hydrazine N contents of the complexes, and calcn. of the coordination number from the metal-to-hydrazine ratio.
- L4 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1979:585793 CAPLUS  
DN 91:185793  
TI Study on some heteronuclear complexes of copper and zinc with hydrazine as ligand  
AU Brezeanu, Maria; Mandravel, Cristina; Gutul, Melania; Todan, Ligia  
CS Rom.  
SO Revistade Chimie (Bucharest, Romania) (1979), 30(3), 224-6  
CODEN: RCBUAU; ISSN: 0034-7752  
DT Journal  
LA Romanian  
AB Hydrazine was added to various amts. of  $\text{CuO}$  and  $\text{ZnO}$  in  $\text{HBr}$  (20%) until the solution attained pH 10. The following complexes were obtained:  $\text{Cu}_n\text{Zn}_m(\text{N}_2\text{H}_4)_2n(n+m)\text{Br}_2(n+m)$ , where either  $n = 1$ , and  $m = 1, 2, 3, 4$ , or  $m = 1$ , and  $n = 1, 2, 3, 4$ . The analyses were performed by gravimetry and IR spectrophotometry.
- L4 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1979:499318 CAPLUS  
DN 91:99318  
TI Study on some heteronuclear complexes of copper- and zinc chloride with hydrazine. Part I  
AU Gutul, Melania; Mandravel, Cristina; Brezeanu, Maria; Tomescu, Camelia  
CS Inst. Politeh. "Gheorghe Gheorghiu-Dej", Bucharest, Rom.  
SO Buletinul Institutului Politehnic Gheorghe Gheorghiu-Dej Bucuresti, Seria Chimie-Metalurgie (1978), 40(4), 35-9  
CODEN: BPGCDL; ISSN: 0378-9616

DT Journal  
 LA Romanian  
 AB The complex  $\text{CuZn}(\text{N}_2\text{H}_4)_4\text{Cl}_4$  was characterized by IR anal. and comparison with the known spectra of related complexes. Interpretation of the spectral data suggested octahedral structure surrounding central metal atoms, the hydrazine acting as ligand between 2 metal atoms.

---

L4 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1979:412949 CAPLUS  
 DN 91:12949  
 TI The study of several complex heteronuclear combinations of cobalt and zinc with hydrazine as ligand  
 AU Mandravel, Cristina; Gutul, Melania; Brezeanu, Maria  
 CS Dep. Chem., Polytech. Inst., Bucharest, Rom.  
 SO Revue Roumaine de Chimie (1979), 24(2), 331-5  
 CODEN: RRCHAX; ISSN: 0035-3930  
 DT Journal  
 LA English  
 AB The heteronuclear complexes  $\text{CoZn}_m(\text{N}_2\text{H}_4)_3(n+m)(\text{NO}_3)_2(n+m)$  ( $n = 1, m = 2, 3, 4; m = 1, n = 1, 2, 3, 4$ ) were prepared and characterized by elemental anal. and IR spectra. The IR spectra indicate that  $\text{N}_2\text{H}_4$  acts as a bidentate and bridging ligand and that the nitrate ion is not coordinated.

L4 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1979:214469 CAPLUS  
 DN 90:214469  
 TI Coordination compounds of some sulfanilamides  
 AU Gogorishvili, P. V.; Tskitishvili, M. G.  
 CS USSR  
 SO Issledovaniya v Oblasti Khimii Kompleksnykh i Prostyykh Soedinenii Nekotorykh Perekhodnykh i Redkikh Metallov (1978), 3, 5-22  
 CODEN: IOKKBV  
 DT Journal  
 LA Russian  
 AB Metal salts reacted with sulfadimethoxine (HL) in aqueous solution at pH 6-7.5 to give  $\text{ML}_2 \cdot n\text{H}_2\text{O}$  ( $M = \text{Mn, Co, Ni, Zn, Cd, Cu}$ ).  $\text{ML}_2$  were heated in pyridine to give  $\text{ML}_2(\text{py})_2$  ( $M = \text{Co, Ni, Cu}$ ) or treated with aqueous  $\text{N}_2\text{H}_4 \cdot n\text{H}_2\text{O}$  to give  $\text{ML}_2(\text{N}_2\text{H}_4)_3$  ( $M = \text{Co, Ni}$ ).  $\text{Co}(\text{NH}_3)_6\text{L}_3$  and  $\text{Cu}(\text{NH}_3)_4\text{L}_2$  were also prepared  
 $M(\text{HQ})_2\text{Cl}_2$  [ $\text{HQ} = \text{HL, 2-(N'-methylsulfanilamido)thiazole (HL')}$ ],  $M(\text{HL}''')_2(\text{OAc})_2$  ( $\text{HL}''' = \text{sulfadimezine; } M = \text{Cu, Co, Ni, Cd}$ ),  $M(\text{HL}''')_2\text{X}_2$  ( $\text{X} = \text{I, Br, NCS; } M = \text{Co, Ni}$ ), and  $[\text{H}_2\text{Q}]_2[\text{MCl}_4]$  [ $\text{HQ} = \text{HL, HL', HL''; } M = \text{Mn, Co, Ni, Cu, Zn, Cd}$ ] were also prepared

L4 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1977:400157 CAPLUS  
 DN 87:157  
 TI Potential anti-tumor activity of platinum and palladium complexes with sulfur and nitrogen ligands  
 AU Kirschner, Stanley; Maurer, Ana; Dragulescu, Coriolan  
 CS Dep. Chem., Wayne State Univ., Detroit, MI, USA  
 SO Journal of Clinical Hematology and Oncology (1977), 7(1), 190-6  
 CODEN: JCHODP; ISSN: 0162-9360  
 DT Journal  
 LA English  
 AB Seven Pt(II) and Pd(II) complexes which contained thiosemicarbazide, morpholine, hydrazine, piperidine, piperazine, and some of their derivs. as ligands showed antitumor activity in  $\geq 1$  testing procedures. All the complexes contained cis-dichloro groups as well as the N-bonded or S-boned ligands. The complex itself or the complex without the chloride is perhaps directly involved in the observed inhibition of DNA synthesis by leukemia cells and(or) of cell division by Escherichia coli. Probably, the complex itself interferes by coordination, through donor atoms from DNA, with other parts of cells or with viruses.

L4 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1977:89978 CAPLUS  
 DN 86:89978  
 TI Reactions of metal complexes with strained heterocyclics. VII. Reactions

of metal carbonyls with diaziridine

AU Danzer, Wolfgang; Beck, Wolfgang; Keubler, Michael

CS Inst. Anorg. Chem., Univ. Muenchen, Munich, Fed. Rep. Ger.

SO Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie (1976), 31B(10), 1360-6  
CODEN: ZNBAD2; ISSN: 0340-5087

DT Journal

LA German

---

GI For diagram(s), see printed CA Issue.

AB Cyclic carbamoyl complexes I (R = H, Me) were prepared in 40, and 35% yields, resp., by treating II with HMn(CO)5. Similarly, III (M = Mo, W) were prepared in 55, and 80% yields, resp., from II (R = H) and C5H5(CO)3MH. Treating LMo(CO)4 (L =  $\pi$ -norbornadiene) or (MeCN)W(CO)5 with II (R = H) gave IV (M = Mo, W), resp. II (R = H) forms adducts with Co and Ni chlorides.

L4 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1974:76245 CAPLUS

DN 80:76245

TI Study of complexes of palladium compounds by x-ray electronic spectroscopy

AU Nefedov, V. I.; Zakharova, I. A.; Moiseev, I. I.; Porai-Koshits, M. A.; Vagraftik, M. N.; Belov, A. P.

CS Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR

SO Zhurnal Neorganicheskoi Khimii (1973), 18(12), 3264-8  
CODEN: ZNOKAQ; ISSN: 0044-457X

DT Journal

LA Russian

AB The x-ray spectra of Pd and 34 Pd complex compds. were examined and the spectra Pd 3d, Cl 2p, N 1s, K 2p, and Br 3d were studied in detail. The shift parameters of the Pd 3d line and calculated bond energies are given for various ligands.

L4 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1972:528618 CAPLUS

DN 77:128618

TI Cobalt(II) halide and hydrazine complexes

IN Stapfer, Christian H.; D'Andrea, Richard W.

PA Cincinnati Milacron Chemicals Inc.

SO Fr., 18 pp.  
CODEN: FRXXAK

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2089216		19720211		
	CA 970783			CA	
	DE 2115520			DE	
	DE 2166039			DE	
	GB 1307469			GB	
	GB 1307799			GB	
	US 3715328		19730000	US	
	US 3728087		19730000	US	
	US 3746733		19730000	US	
	US 3884980		19750000	US	
PRAI	US 1970-26161		19700406		

AB Trihydrazine and trihydrazinehydrochloride complexes of Co(II), of the general formulas [Co(RNHNH2)3]X2 and [Co(N2H4.HX)3]X2 (X = halogen, R = H or organic radical) are prepared by addition of the N2H4 to [Co(Bipy)]X2 in an anhydrous solvent. They are sensitive to O and are kept at 0° in an inert atmospheric (N, He, or Ar). The Cl compds. are more stable than those of Br or I. They are effective catalysts for paint drying and other O-transfer reactions. The N2 H4.HX complexes are very soluble in water and are effective as homogeneous catalysts in aqueous solution

L4 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1972:463486 CAPLUS

DN 77:63486

TI Cobalt(II) halide/hydrazine complexes for making polymers

IN Stapfer, Christian H.; D'Andrea, Richard W.  
 PA Cincinnati Milacron Chemicals, Inc.  
 SO S. African, 35 pp.  
 CODEN: SFXAB  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ZA 7101706	A	19711229	ZA 1971-1706	19710316
	DE 2148215	C3	19790412	DE 1971-2148215	19710331
	DE 2166039	B2	19790621	DE 1971-2166039	19710331
	DE 2166039	C3	19800619		
PRAI	US 1970-26161	A	19700406		

AB Co(II) halide trihydrazinates, [Co(II)(RNHNH<sub>2</sub>)<sub>3</sub>X<sub>2</sub> (I) or [Co(II)(N<sub>2</sub>H<sub>4</sub>.HX)<sub>3</sub>]X<sub>2</sub> (II), where R = H, alkyl, aralkyl, aryl, or haloalkyl and X = halogen, were prepared and used in drying of alkyd or polyester resin coatings. Thus, Co(II) chloride-2,2'-bipyridine complex was dissolved in DMF and treated with H<sub>2</sub>NNH<sub>2</sub> to form cobalt(II) trihydrazinate dichloride (I, R = H, X = Cl) (II) [35430-21-8]. The product was refrigerated and kept under N. Cobalt(II) tris(phenylhydrazinate) dichloride [35430-22-9], cobalt(II) trihydrazinate dibromide [35430-23-0], cobalt(II) trihydrazinate diiodide [35430-24-1], and cobalt(II) tris(hydrazine hydrochloride) dichloride (II, X = Cl) [35430-25-2] were also prepared but the middle two compds. decomposed violently in air. The polymerization of Laminac 4152 (styrene-modified rigid polyester resin) was initiated by addition of Me Et ketone peroxide and I solution in cyclohexanone. The gel and cure times were 0.2 and <10 min., resp., compared with 2 and 26, resp., for a similar sample using a dihydrazinate complex and 15 and 57, resp., for a similar sample using Co naphthenate instead of I.

L4 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1972:132726 CAPLUS  
 DN 76:132726

TI Structure of nickel oxalate complexes with hydrazine  
 AU Krylov, E. I.; Sharov, V. A.; Makurin, Yu. N.; Nikonenko, E. A.  
 CS Ural. Politekh. Inst. im. Kirova, Sverdlovsk, USSR  
 SO Zhurnal Neorganicheskoi Khimii (1972), 17(3), 709-12  
 CODEN: ZNOKAQ; ISSN: 0044-457X

DT Journal  
 LA Russian  
 AB The structure of the title complexes was determined by ir spectra and by their magnetic moments. N<sub>2</sub>H<sub>4</sub> reacts with NiC<sub>2</sub>O<sub>4</sub>.2H<sub>2</sub>O partially replacing H<sub>2</sub>O and partially C<sub>2</sub>O<sub>4</sub><sup>2-</sup> groups. The product of such an interaction is NiC<sub>2</sub>O<sub>4</sub>.N<sub>2</sub>H<sub>4</sub>.(1.5-2)H<sub>2</sub>O, having tetraand bidentate C<sub>2</sub>O<sub>4</sub><sup>2-</sup> and bridging N<sub>2</sub>H<sub>4</sub>. Ni(C<sub>2</sub>O<sub>4</sub>)(N<sub>2</sub>H<sub>4</sub>)<sub>2</sub>.0.5-H<sub>2</sub>O has a bidentate C<sub>2</sub>O<sub>4</sub><sup>2-</sup> ion and 2 bridging N<sub>2</sub>H<sub>4</sub>. All 6 coordination sites of Ni(II) in Ni(C<sub>2</sub>O<sub>4</sub>)(N<sub>2</sub>H<sub>4</sub>)<sub>3</sub>.0.75H<sub>2</sub>O are occupied by bidentate N<sub>2</sub>H<sub>4</sub>. Subsequent addition of N<sub>2</sub>H<sub>4</sub> leads to a cleavage of the chelate bond of N<sub>2</sub>H<sub>4</sub>, giving products having only monodentate N<sub>2</sub>H<sub>4</sub>. The absorption maximum of these compds. are given.

L4 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1971:429446 CAPLUS  
 DN 75:29446

TI Complexes of cobalt(II) halides with hydrazine derivatives  
 AU Stapfer, Christian H.; D'Andrea, Richard W.  
 CS Cincinnati Milacron Chem. Inc., New Brunswick, NJ, USA  
 SO Inorganic Chemistry (1971), 10(6), 1224-7  
 CODEN: INOCAJ; ISSN: 0020-1669

DT Journal  
 LA English  
 AB Novel complexes of Co(II) halides with hydrazine and hydrazine derivs. are described as well as some of their chemical properties. Compds. of the type CoIIX<sub>2</sub>(R:NN:R) were obtained by direct reaction of Co(II) halides with ketazines and aldazines or by condensation of bis(hydrazinates) with ketones or aldehydes. Tris(hydrazino)cobalt(II) halides of the type CoIIX<sub>2</sub>(N<sub>2</sub>H<sub>4</sub>.HCl)<sub>3</sub> were prepared by ligand exchange of the azino complexes with hydrazine. The hydrochloride analogs, CoIIX<sub>2</sub>(N<sub>2</sub>H<sub>4</sub>.HCl)<sub>3</sub>, were the

result of the reaction of Co(II) halides with hydrazones and hydroxylamine hydrochloride.

L4 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1971:148564 CAPLUS

DN 74:148564

TI Complexes of phenylhydrazine with transition metal halides

AU Konovalov, L. V.; Maslennikova, I. S.; Shemyakin, V. N.

CS USSR

SO Zhurnal Obshchei Khimii (1970), 40(11), 2443-5

CODEN: ZOKHA4; ISSN: 0044-460X

DT Journal

LA Russian

AB The following complexes of type  $MCl_2 \cdot 2PhNHNH_2$  were prepared as air-dried solids (M shown): Co, Ni, Cu, Zn; as well as  $CdCl_2$ ,  $CdBr_2$ , and  $CdI_2$  analogs. These were characterized by ir spectra in which the NH bands appear around  $3200\text{ cm}^{-1}$ , M-N bands at  $380\text{--}450\text{ cm}^{-1}$ , M-halogen bands at  $240\text{--}300$ , in partial assignments that were made. The spectra give reason to indicate covalent nature of the bond structures; in complexes based on Cd the halogen atoms appear to be displaced to the outer coordination sphere and the Cl, Br, and I members are not regarded as isostructural owing to this displacement. The Zn complex has tetrahedral coordination whereas the Co complex has a structure of polymeric octahedra linked by Cl bridges. The Ni complex gave such a complex spectrum that its structure could not be judged, and Cu complex had a low-frequency spectrum of such a low quality of resolution that no structure could be deduced from it.

L4 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1971:60370 CAPLUS

DN 74:60370

TI Complexes of nickel with aminobenzoic acids

AU Gogorishvili, P. V.; Tskitishvili, M. G.

CS USSR

SO Issled. Obl. Khim. Kompleks. Prostykh Soedin. Nekot. Perekhodnykh Redk. Metal. (1970), 58-72 Publisher: "Metsniereba", Tiflis, USSR.

CODEN: 22UFAP

DT Conference

LA Russian

AB The reactions of m- and p-aminobenzoic acids with salts of Ni were studied. Under the described conditions, compds. of identical composition (m,p-AB) $2Ni \cdot 2H_2O$  (where HAB represents aminobenzoic acid) are formed from both isomers. When o-HAB reacts with  $(N_2H_3CO_2)_2Ni \cdot 2H_4$  a binuclear compound  $Ni_2(o\text{-AB})_4N_2H_4$  is formed, while under analogous conditions m- and p-HAB give compds. of a different composition (m- and p-AB) $2Ni \cdot 2N_2H_4$ . Depending upon the concns. of the reactants, the isomers of HAB replace the radical of hydrazinecarboxylic acid from  $N_2H_5[Ni(N_2H_3CO_2)_3]H_2O$  partially or completely irreversible with the formation of (o, m-, and p-AB) $Ni(N_2H_3COO)N_2H_4$ , (o-AB) $4Ni \cdot 2N_2H_4$ , and (m- and p-AB) $2Ni \cdot 2N_2H_4$ .

L4 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1968:473539 CAPLUS

DN 69:73539

TI Effect of ammonia and hydrazine on  $(N_2H_3CO_2)_2Co \cdot N_2H_4$

AU Tsitsishvili, L. D.

CS USSR

SO Kompleks. Soedin. Nekot. Perekhodnykh Redk. Elem. (1966), 32-5

CODEN: 19PMAP

DT Conference

LA Russian

AB The reaction of  $NH_4OH$  and hydrazine with  $Co(N_2H_4)(N_2H_3CO_2)_2$  yields  $Co(N_2H_5CO_2)_2 \cdot NH_3H_2O$  and  $Co(N_2H_3CO_2)_2 \cdot (N_2H_4)_2$ , which corroborate the existence of a low-stability 3-member hydrazine ring.

